CLAIMS

- 1. A vector that encodes a replication competent HIV-1 virus, said vector comprising an HIV-1 genome in which a region non-essential for viral replication has been replaced by a reporter gene.
- 2. The vector according to claim 1 wherein said reporter gene is selected from the group consisting of the renilla luciferase reporter gene, the SEAP reporter gene, the CAT gene, and the green fluorescence protein gene.
- 3. The vector according to claim 2 wherein said reporter gene is selected from the group consisting of the renilla luciferase reporter gene and the SEAP reporter gene.
- 4. The vector according to claims 1, 2 or 3 wherein the region non-essential for viral replication encodes the nef gene or a fragment of the nef gene.
- 5. The vector according to claims 1, 2 or 3 wherein the region non-essential for viral replication encodes the vpr gene or a fragment of the vpr gene.
- 6. The vector according to claims 1, 2 or 3 wherein the HIV-1 genome is the genome of the pNL4-3 proviral clone.
- 7. The vector according to claims 1, 2 or 3 wherein the HIV-1 genome is the genome of the pYU-2 proviral clone.
- 8. The vector according to claims 1, 2 or 3 wherein the HIV-1 genome is the genome of the p89.6 proviral clone.

- 9. The vector according to claims 1, 2 or 3 wherein the HIV-1 genome is the genome of the HIV-1 Lai proviral clone.
- 10. A cell comprising the vector of claim 1, 2 or 3.
- A method of screening for compounds that 11. exhibit anti-viral activity against HIV-1 comprising:
 - adding a test compound to a) mammalian cells infected or cells to be infected with the vector according to claim

1, 2 or 3; and

comparing reporter gene b) activity in cells exposed to the test compound to the level of expression in control cells,

wherein a reduction in the level of reporter gene expression indicates the test compound inhibits HIV-1 replication.

- 12. The method according to claim 8, wherein the mammalian cells are MT-2 #18 cells.
- 13. A vector that encodes a replication competent HIV-1 virus, said vector comprising an HIV-1 genome in which a region non-essential for viral replication has been replaced by a nucleic acid sequence encoding a function of renilla luciferase enzyme.
- The vector according to claim 13 wherein the renilla luciferase gene contains a cysteine to alanine substitution that results in a functional renilla luciferase enzyme.

- 15. The vector according to claim 13 wherein the region non-essential for viral replication encodes the nef gene or a fragment of the nef gene.
- 16. The vector according to claim 13 wherein the region non-essential for viral replication encodes the vpr gene or a fragment of the vpr gene.
- 17. The vector according to claim 13 wherein the HIV-1 genome is the genome of the pNL4-3 proviral clone.
- 18. The vector according to claim 13 wherein the HIV-1 genome is the genome of the pYU-2 proviral clone.
- 19. The vector according to claim 13 wherein the HIV-1 genome is the genome of the p89.6 proviral clone.
- 20. The vector according to claim 13 wherein the HIV-1 genome is the genome of the HIV-1 Lai proviral clone.
- 21. A cell comprising the vector of claim 13.
- 22. A method of screening for compounds that exhibit anti-viral activity against HIV-1 comprising:
 - a) adding a test compound to mammalian cells infected or cells that will be infected with the vector according to claim 13; and
 - b) comparing reporter gene activity in cells exposed to the test compound to the level of expression in control cells,

wherein a reduction in the level of reporter gene expression indicates the test compound inhibits HIV-1 replication.

23. The method according to claim 13, wherein the mammalian cells are MT-2 #18 cells.